



National Center for Infants, Toddlers, and Families

**STATEMENT FOR THE RECORD OF  
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FAMILIES**

**SUBMITTED TO THE SUBCOMMITTEE ON HUMAN RESOURCES  
HOUSE COMMITTEE ON WAYS AND MEANS**

**HEARING ON IMPROVING PROGRAMS DESIGNED TO PROTECT AT-RISK  
YOUTH  
June 16, 2011**

Mr. Chairman and Members of the Subcommittee:

I am pleased to submit the following written testimony to the Subcommittee on Human Resources on behalf of ZERO TO THREE, National Center for Infants, Toddlers, and Families. My name is Matthew Melled, and I am the Executive Director of ZERO TO THREE, a national non-profit organization that has worked to advance the healthy development of America's infants and toddlers for over 30 years. I would like to start by thanking the Subcommittee for holding this hearing examining how to improve the care of the very vulnerable children overseen by the child welfare system. Today, I want to urge your attention to, and your action on behalf of, a subset of that group who truly are the most vulnerable members of our society: infants and toddlers who have experienced abuse or neglect.

Every seven minutes in America, an infant or toddler is removed from parental care and placed with another adult, often a stranger. These babies are only a portion of the very young children who are found to be abused or neglected. These distressing events happen at a time in a child's life when the brain is developing seemingly at light speed as the child acquires the abilities to think, speak, learn, and reason. A baby's brain is forming 700 new neural connections *every second*. Early experiences, both positive *and* negative, have a decisive effect on how the brain is wired. So it should not be surprising that early and sustained exposure to adverse experiences such as abuse and neglect can literally alter the brain's architecture, giving rise to difficulties that include cognitive delays, poor self-regulation, difficulty paying attention, poor self-esteem, and difficulty forming attachments. While no child in the child welfare system has a story that is less than compelling, infants and toddlers are at risk for carrying that story around for the rest of their lives ingrained in the very architecture of their brains.

Recently, ZERO TO THREE joined with other national children's organizations, American Humane Association, Center for the Study of Social Policy, Child Welfare League of America, and Children's Defense Fund, to issue a *Call to Action on Behalf of Maltreated Infants and*

*Toddlers.*<sup>1</sup> This document lays out the case for ensuring that every baby who comes to the attention of child welfare receives care oriented to supporting positive development at every step. It provides a checklist of the elements of such a developmental approach. These elements or action steps can be used by federal and state policymakers to build these elements into policy initiatives, such as the reauthorization of Title IV-B of the Social Security Act, as well as child welfare practice at the state and local level.

My remarks are taken from the *Call to Action* and seek to make the case to the Subcommittee for a special focus on babies, not to the exclusion of other children, but as a population with special and unique needs that warrant decisive action that can improve their lives. I also will discuss a promising model, the Safe Babies Court Teams, which implements a developmental approach through local juvenile and family courts. Finally, I will outline recommendations for the reauthorization based on the checklist in the *Call to Action*.

### **Infants and Toddlers Are a Significant Proportion of the Child Welfare Population**

Very young children have the highest rates of maltreatment, with the rate for infants (20.6 per 1,000 infants) far outstripping other age groups. In 2009, 187,428 infants and toddlers had substantiated cases of abuse or neglect.<sup>2</sup> Sometimes their vulnerability has tragic consequences: of the 1,676 children who died from abuse or neglect in 2009, almost three out of four (79.8%) were younger than age three and close to half (46.2%) were infants.<sup>3</sup>

Infants and toddlers comprise almost a third of children who are placed in foster care each year (31% in 2009). More than half (16%) were infants.<sup>4</sup> Once in care, they tend to stay longer, with infants who come into care younger than 3 months staying the longest. These newborns are less likely to leave care with their biological parents (only 28% are reunified compared with 43% adopted) than older infants (42% reunified and 26% adopted).<sup>5</sup> Almost a third of infants who are reunified will return to foster care.<sup>6</sup>

### **The Developing Brain is Harmed by Abuse and Neglect**

Neuroscientific research on early brain development indicates that young children warranting the greatest concern are those growing up in environments, starting before birth, that expose them to abuse and neglect. Such early and sustained exposure to risk factors like child abuse and neglect can influence the physical architecture of the developing brain, preventing infants and toddlers from fully developing the neural pathways and connections that facilitate later learning. In short, maltreatment alters the brain's architecture.<sup>7</sup> These changes in the brain give rise to several psychological difficulties—cognitive delays, poor self-regulation, and difficulty in paying attention.<sup>8</sup> Maltreated infants and toddlers may also struggle with poor self-esteem, behavior control, attachment formation and may have difficulty showing empathy, controlling their behavior in social situations, and initiating social interaction.

Clearly, infants and toddlers in the child welfare system face developmental challenges. Approximately one third of infants and toddlers investigated by child welfare services have been determined to have a developmental delay.<sup>9</sup> Data from the National Survey of Child and Adolescent Well-Being (NSCAW) indicate that 35% of children from birth to age 3 years

involved in child welfare investigations were in need of early intervention services. However, only a small percent (12.7%) of these children were receiving the Individualized Family Service Plans to which they were entitled under federal law.<sup>10</sup>

I want to especially mention the effects on babies of maternal substance abuse and particularly alcohol use during pregnancy. This topic is particularly important given the IV-B targeted grants for children affected by methamphetamine or other substance abuse that give priority to programs focusing on methamphetamine use. Alcohol use often co-occurs with other substance abuse during pregnancy and can occur on its own as well. One estimate is that 70 percent of children in foster care were prenatally exposed.<sup>11</sup> While there is much publicity surrounding illegal drug use during pregnancy, alcohol causes the most serious neurobehavioral effects in the developing fetus as well as long term behavioral, cognitive and other deficits. Fetal Alcohol Spectrum Disorders are the invisible problem that not only affects many babies in the child welfare system, but may also have gone undiagnosed in many of their parents, contributing to difficulties in carrying out effective case plans.

### **Early Relationships are Key**

The damage resulting from maltreatment becomes more comprehensible when we understand that relationships with caregivers are the context in which early development occurs. These first relationships that a child forms with adults have the strongest influence on social and emotional development.<sup>12</sup> Infants and toddlers rely on their closest caregivers for security and comfort. Those who are able to develop secure relationships are observed to be more mature and positive in their interactions with adults and peers than children who lack secure attachments.<sup>13</sup>

Not surprisingly, researchers have found that approximately 82% of maltreated infants show disturbances in their attachment to their caregivers.<sup>14</sup> These disruptions place them at great risk. And when young children are formally separated from their caregivers, challenges to maintain and rebuild relationships may be compromised. Young children who do not form an attachment with at least one trusted adult suffer, and their development can deteriorate rapidly, resulting in delays in cognition and learning, relationship dysfunction, and difficulty expressing emotions. Young children with unhealthy attachments are also at much greater risk for delinquency, substance abuse, and depression later in life.

### **Infants and Toddlers in Foster Care are at Particular Risk**

Infants and toddlers placed in foster care are at particular risk. The care they receive following removal from their parents, if not properly attuned to its effect on their development, can compound the developmental harm from maltreatment. Psychologist Brenda Jones Harden describes foster care placement for babies as “major surgery without an anesthetic.”<sup>15</sup> Separation from parents, sometimes sudden and usually traumatic, coupled with the difficult experiences that may have precipitated out-of-home placement, can leave infants and toddlers dramatically impaired in their emotional, social, physical, and cognitive development.<sup>16</sup> Negative foster care experiences may extend and compound developmental impairments<sup>17</sup> which research indicates can affect each domain of developmental functioning.<sup>18</sup>

Two major problems for infants and toddlers in foster care are the lack of ongoing parent child-contact and the multiple moves that some children experience. Maintaining or healing attachments with parents are critical for young children but can be difficult while the child is in placement. Visitation for infants and toddlers should be as frequent as possible (e.g. daily or multiple times per week) and be conducted in home-like locations that are familiar to the child.<sup>19</sup> Typical child welfare policy dictates once weekly visits between parents and children. An overarching principle of infant mental health intervention is that relationships (e.g. between parent and child as well as family and interventionist) are the conduit for change in the young children and families served.<sup>20</sup>

Multiple moves while in foster care are a particular concern for infants and toddlers. When a baby faces a change in placement, fragile new relationships with foster parents are severed, reinforcing feelings of abandonment and distrust. Even very young babies grieve when their relationships are disrupted and this sadness adversely affects their development. These multiple moves place children at an increased risk for poor outcomes with regard to social-emotional health and the ability to develop secure healthy attachments.<sup>21</sup> A developmentally appropriate policy strives to make the first placement the last placement, at least until reunification with parents may occur.

### **Babies Carry the Effects of Maltreatment Throughout Their Lives**

The toll extracted by maltreatment and the often-inadequate response of the child welfare system to address impairments can resonate throughout a child's life. NSCAW data indicate that half of maltreated infants exhibit some form of cognitive delay. They are more likely to have deficits in IQ scores, language ability, and school performance than other children who have not been maltreated.<sup>22</sup> Maltreated infants and toddlers are also more likely to have physical health difficulties—greater neonatal problems, higher rates of failure to thrive, and dental disease.

Disproportionate exposure to early trauma and other developmental risk factors can result in a variety of mental health disorders. Physical abuse impairs a young child's social adjustment, including elevated levels of aggression that are apparent even in toddlers. Long-term negative outcomes include school failure, juvenile delinquency, substance abuse, and the continuation of the cycle of maltreatment into future generations. Too often, foster children become parents themselves too soon and have little experience with loving, nurturing relationships to guide their own parenting. The cycle must be broken.

### **Hope Through Action: A Unique Window of Opportunity**

Research confirms that the early years present an unparalleled window of opportunity to effectively intervene with at-risk children.<sup>23</sup> To be effective, interventions must begin early and be designed with the characteristics and experiences of these infants, toddlers, and families in mind.<sup>24</sup> Intervening in the early years can lead to significant cost savings over time through reductions in child abuse and neglect, criminal behavior, welfare dependence, and substance abuse. If services are not provided until a child is 6, 7, or 8 years of age, the most critical opportunity for prevention and intervention is missed.<sup>25</sup> A study of the cumulative costs of special education from birth to age 18 years found that intervening at birth resulted in lower costs

over the course of childhood than services started later in life (approximately \$37,000 when services were begun in infancy, 28% to 30% lower than when begun after the age of 6).<sup>26</sup>

Given this early window of opportunity, there are a number of ways that policymakers and practitioners can intervene to improve outcomes for infants and toddlers. Child welfare practices must be focused on child safety and also structured to promote healthy development and the formation of a secure attachment. A reorientation of thinking is needed to reform approaches to infants and toddlers who come to the attention of the child welfare system at such a developmentally critical time.

### **An Agenda for Addressing the Developmental Needs of Infants and Toddlers**

To help policymakers and child welfare administrators build a more developmentally responsive system, the *Call to Action* lays out guiding principles for promoting infant and toddler development and the protective factors that help families mitigate the trauma of maltreatment and provide a nurturing environment for young children. They include:

- *Every child welfare decision and service should have a goal of enhancing the well-being of infants, toddlers, and their families to set them on a more promising developmental path.* Reorienting a child welfare system toward a developmental approach requires commitment from policymakers as well as the inclusion of specific knowledge of the science of early child development in the training for child welfare, social service, early childhood, and legal workforces.
- *Stable caring relationships are essential for healthy development.* Child welfare policies and practices should make supporting responsive, secure bonds between the youngest children and their parents and caregivers a central goal. This means maintaining and supporting parent-child contact; minimizing multiple placements; limiting the use of congregate care to situations where parents and their young children can be cared for together; and promoting timely permanence.
- *Early intervention can prevent consequences of early adversity.* Developmentally appropriate screening and assessments must become routine, followed by intervening early with necessary services. We should not forget the needs of the parents, who often are themselves victims of childhood trauma. Infant and early childhood mental health specialists can help address the relationship between baby and parent and baby and foster parent. Child-parent therapy may be essential. Special efforts are needed to get this help to infants and toddlers when they first come to the attention of the child welfare system.
- *Families and communities must be key partners in efforts to ensure the well-being of every child.* The child welfare system cannot do it alone. Child welfare policies must facilitate coordination among agencies to provide comprehensive assistance for at-risk families. For at-risk families with young children, help in building strong friendships and community connections that reduce isolation can provide an especially valuable network of support.

- *Child welfare administration at the federal, state, and local levels must focus on infants, toddlers, and their families in such functions as the delivery of services, data collection, research, and attention to special populations.* It is critical that we know more about what is occurring with the youngest children in the child welfare system and what works best in addressing their needs. We must acknowledge and respond to their needs in program administration, research, data collection, and analysis, as well as the provision of ongoing services.

### **A Developmental Approach in Practice: Safe Babies Court Teams**

While the checklist for a developmental approach in the *Call to Action* may seem both sweeping and daunting for child welfare systems to implement, I want to highlight a model developed at ZERO TO THREE that has successfully applied developmental principles to foster care cases involving infants and toddlers. Within the Safe Babies, Strong Families, Healthy Communities project, Safe Babies Court Teams are combining judicial leadership with the science of early childhood development and community partnerships to produce systems change at the local level in 10 communities around the country. Each Court Team, led by a juvenile and family court judge, is representative of all the decision-makers, services and resources which can support abused and neglected babies in the community. Individual team members learn how to apply evidence-based whole-child decision-making to improve healthy developmental outcomes one baby at a time. Collectively, the whole team creates systemic changes that build community capacity to improve outcomes for all babies and toddlers in the child welfare system. In short, Court Teams transform the way communities approach the needs of marginalized babies and toddlers to lay a healthy foundation for their educational and social success.

The Court Teams approach leads to better decision making, as monthly meetings keep cases involving these rapidly developing children moving forward, and ensures “front-loading” services, so that families’ needs are assessed from the beginning and a plan for services developed. The community team ensures access to needed family and child-specific services, including universal screening for developmental delays (under Part C of IDEA and the Child Abuse Prevention and Treatment Act), primary care pediatric medical care, emphasis on working jointly with the parent and child to create a healthy relationship, bringing the foster parents into the circle of adults working with the maltreating parents to serve as mentors and post-permanency resources, frequent opportunities for parents and children to spend time together in home-like settings under the supervision of adults who help the children and parents enjoy their time together. There is a focus on kinship care, increasing involvement of fathers, and concurrent planning. Expediting permanency is a major goal.

Judges leading these teams see the approach as transforming how they do their work. An independent evaluation found the Court Teams were meeting 97% of identified service needs, achieving timely permanency in 95% of closed cases, minimizing placements while in out-of-home care, and achieving positive safety outcomes.<sup>27</sup> The Teams have increased parent-child visits needed for healthy attachments as well as relative/kinship placements. Most exciting, I am able to share with you the results of a recent study using the data from the original evaluation. When compared with a nationally representative comparison group (n=511), the children served

by the Court Teams in Des Moines, IA; Hattiesburg, MS, New Orleans, LA, and Fort Bend County, TX (n=298) reached permanency two to three times faster. This differential was true when the two samples were compared by types of exit (e.g. reunification, adoption, kinship custodianship). *Children served by the Court Teams exited the foster care system approximately one year earlier than children in the comparison group.*<sup>28</sup>

The Court Teams projects were the model for legislation introduced in the previous two Congresses by Representatives Rosa DeLauro and Ileana Ros-Lehtinen (The Safe Babies Act of 2009, H.R.3474) and expected to be reintroduced in this Congress.

### **Incorporating a Focus on Infants and Toddlers in Title IV-B Reauthorization**

The reauthorization of the child welfare programs included in Title IV-B of the Social Security Act offers a promising starting point for infusing both a special focus on infants and toddlers and the adoption of a developmental approach into child welfare policy. The *Call to Action* is intended to be a guide to building a system that embodies such a developmental orientation. The following recommendations provide a cross-walk from the elements of that system to the policies in the federal statute.

- (1) *Require states to describe in their Title IV-B state plans how they are addressing the developmental needs of infants and toddlers who come in contact with the child welfare system.* A state plan requirement would ensure that states begin to think about infants and toddlers as a distinct population with unique needs and to better target resources to meet those needs.
- (2) *Require an emphasis on detecting and addressing developmental delays and including services in case plans for infants and toddlers.* Because infants and toddlers who have experienced abuse or neglect have a very high rate of developmental delays, they need medical homes and periodic screening by physicians as well as Part C of the Individuals with Disabilities Education Act early intervention services. Currently there is a requirement that all infants and toddlers with substantiated cases of abuse and neglect be referred for screening, but even when children are not initially found eligible for early intervention services, they need continued monitoring and screening.
- (3) *Promote the availability of a continuum of mental health services for parents and young children that support social and emotional wellbeing.* Infants and toddlers who have been traumatized by maltreatment may need mental health services. These include assessment of the parent-child relationship; parenting education programs that are effective in working with maltreating parents; frequent (as often as daily) parent-child contact if the child has been removed from the home accompanied by support for productive visits; and child-parent psychotherapy specifically for families with very young children. Such provisions could be applicable within the range of family services defined in Sec. 431(a).
- (4) *Promote training of stakeholders (including child welfare workers, judges and other court-related personnel, and community providers) on early childhood development, particularly brain development, and the impact of various child welfare policies and practices on promoting positive development.* Judges are the first to admit that legal education does not include child development, much less the science specifically relating to brain development in the first three years of life. Child welfare workers and service

providers also may not have the specialized knowledge they need to ensure the practices and services for young children are designed to promote optimal development.

- (5) *Require data collection and research that allow us to discern the experiences of infants and toddlers in the child welfare system.* Often infants and toddlers are not included as a distinct category in data collection. Similarly, more research is needed on their experiences and what approaches work best in their cases.
- (6) *Eliminate the focus on methamphetamine use in the targeted grants for children affected by substance abuse and ensure that alcohol use, as well as the developmental needs of the children, are addressed.* We support approaches to the problems facing families in the child welfare system that involve community collaboration and consider the range of needs of both parents and children beyond the substance abuse. The use of alcohol on its own or in conjunction with other substances contributes to neurobehavioral effects in babies and may even contribute to the cycle of child welfare involvement in some families. We urge attention to this problem.
- (7) *Increase funds for court improvement to bring the approach of the Safe Babies Court Teams to communities across the country.* The Court Teams approach may be thought of as “child welfare reform from the ground up.” It is changing the lives of maltreated babies and their families as well as changing systems in communities. The latest evidence shows it is helping babies find permanent homes much faster. We urge the Subcommittee to consider making this approach available to more courts and communities as an avenue to ensuring a developmental approach to caring for infants and toddlers in the child welfare system.

### **Take Action for a Better Future for Abused and Neglected Babies**

In conclusion, I appreciate the opportunity to provide input to the Subcommittee as it begins to consider the reauthorization of Title IV-B. Maltreated infants and toddlers should not be twice neglected--once by their caregivers and again by a child welfare system and a society that fail to do everything they can to ensure the development of vulnerable young children does not suffer because of their circumstances. The numbers describing the prevalence of infants and toddlers in the child welfare system certainly call for attention. But even more compelling is the developmental disaster that lies in wait for babies who are maltreated and lack that one person in life who is crazy about them and who will envelop them in positive, nurturing experiences. The good news is that, just as maltreatment can resonate throughout a child's life, so can solid, nurturing early intervention that puts his or her development on a positive path. We *can* make a difference in these children's lives *if* we act now to ensure that what we know from the science of early childhood development guides what we do for these very vulnerable babies.

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<sup>1</sup> The complete report is available at <http://www.zerotothree.org/public-policy/federal-policy/childwelfareweb.pdf>.

<sup>2</sup> U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. (2010). *Child Maltreatment 2009*. Available from [http://www.acf.hhs.gov/programs/cb/stats\\_research/index.htm#can](http://www.acf.hhs.gov/programs/cb/stats_research/index.htm#can).

<sup>3</sup> U.S. Department of Health and Human Services, Administration for Children and Families. *Child Maltreatment 2008*. U.S. Department of Health and Human Services, 2010, [www.acf.hhs.gov](http://www.acf.hhs.gov).



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- <sup>4</sup> U.S. Department of Health and Human Services, Administration for Children and Families, The AFCARS Report: Preliminary FY 2009 Estimates as of July 2010 (17). Retrieved August 10, 2010 from [http://www.acf.hhs.gov/programs/cb/stats\\_research/afcars/tar/report17.htm](http://www.acf.hhs.gov/programs/cb/stats_research/afcars/tar/report17.htm).
- <sup>5</sup> Fred Wulczyn, Lijun Chen, Linda Collins, and Michelle Ernst, "The Foster Care Baby Boom Revisited: What do the Numbers Tell Us?" *ZERO TO THREE Journal*, 31 no.3: 4-10.
- <sup>6</sup> Ibid.
- <sup>7</sup> Jack Shonkoff, 2007. Interviewed in *Helping Babies From the Bench: Using the Science of Early Childhood Development in Court*. Washington, DC: ZERO TO THREE.
- <sup>8</sup> Brenda Jones Harden, Infants in the Child Welfare System. *A Developmental Framework for Policy and Practice*. Washington, DC: ZERO TO THREE Press, 2007.
- <sup>9</sup> Cecilia Casanueva, Theodore Cross and Heather Ringeisen, *Developmental Needs and Individualized Family Service Plans Among Infants and Toddlers in the Child Welfare System*. 2008. Downloaded August 18 at <http://cmx.sagepub.com/cgi/content/abstract/13/3/245>.
- <sup>10</sup> Ibid.
- <sup>11</sup> Katrine Herrick, Lucy Hudson, and Larry Burd. "The Elephant in the Cradle: Fetal Alcohol Spectrum Disorders." *ZERO TO THREE Journal*, 31 no. 3: 44-50.
- <sup>12</sup> National Research Council and Institute of Medicine, *From Neurons to Neighborhoods: The Science of Early Childhood Development*. Jack Shonkoff and Deborah A. Phillips, eds. Washington, DC: National Academy Press, 2000.
- <sup>13</sup> Ibid.
- <sup>14</sup> Ibid.
- <sup>15</sup> Brenda Jones Harden, Comments at Congressional Baby Caucus Briefing on "America's Most Vulnerable: Infants and Toddlers in the Child Welfare System," May 23, 2011.
- <sup>16</sup> Alicia Lieberman and Patricia Van Horn, "Assessment and Treatment of Young Children Exposed to Traumatic Events." In J. Osofsky, ed., *Young Children and Trauma: Intervention and Treatment*, New York: The Guilford Press, 2007.
- <sup>17</sup> National Research Council, *From Neurons to Neighborhoods*.
- <sup>18</sup> Brenda Jones Harden, Infants in the Child Welfare System. *A Developmental Framework for Policy and Practice*. Washington, DC: ZERO TO THREE Press, 2007.
- <sup>19</sup> Brenda Jones Harden, Infants in the Child Welfare System. *A Developmental Framework for Policy and Practice*. Washington, DC: ZERO TO THREE Press, 2007.
- <sup>20</sup> Ibid.
- <sup>21</sup> Yvon Gauthier, Gilles Fortin, and Gloria Jeliu, "Clinical Application of Attachment Theory in Permanency Planning for Children in Foster Care: the Importance of Continuity of Care." *Infant Mental Health Journal* 25, no. 4 (2004); 379-397.
- <sup>22</sup> Ibid.
- <sup>23</sup> National Research Council and Institute of Medicine, *From Neurons to Neighborhoods: The Science of Early Childhood Development*. Jack Shonkoff and Deborah A. Phillips, eds. Washington, DC: National Academy Press, 2000.
- <sup>24</sup> Brenda Jones Harden, Infants in the Child Welfare System. *A Developmental Framework for Policy and Practice*. Washington, DC: ZERO TO THREE Press, 2007.
- <sup>25</sup> Infant Mental Health Project, Center for Prevention and Early Intervention Policy, Florida State University, Tallahassee.
- <sup>26</sup> M.E. Wood, "Costs of Intervention Programs." In C. Garland et al., eds., *Early Intervention for Children with Special Needs and Their Families: Findings and Recommendations*. Westar Series Paper No. 11, Seattle: University of Washington, 1981.
- <sup>27</sup> Hafford, C., McDonnell, C., Kass, L., DeSantis, J., & Dong, T. (2009). *Evaluation of the Court Teams for Maltreated Infants and Toddlers: Final Report*. Submitted to the Office of Juvenile Justice and Delinquency Prevention, U.S. Department of Justice by James Bell Associates, Arlington, VA.
- <sup>28</sup> K.L. McCombs. *Fostering a Permanent Home: A Mixed Methods Evaluation of the ZERO TO THREE Court Teams for Maltreated Infants and Toddlers Initiative Effect on Time to Permanency*. Chapel Hill, NC: University of North Carolina at Chapel Hill, 2011.